

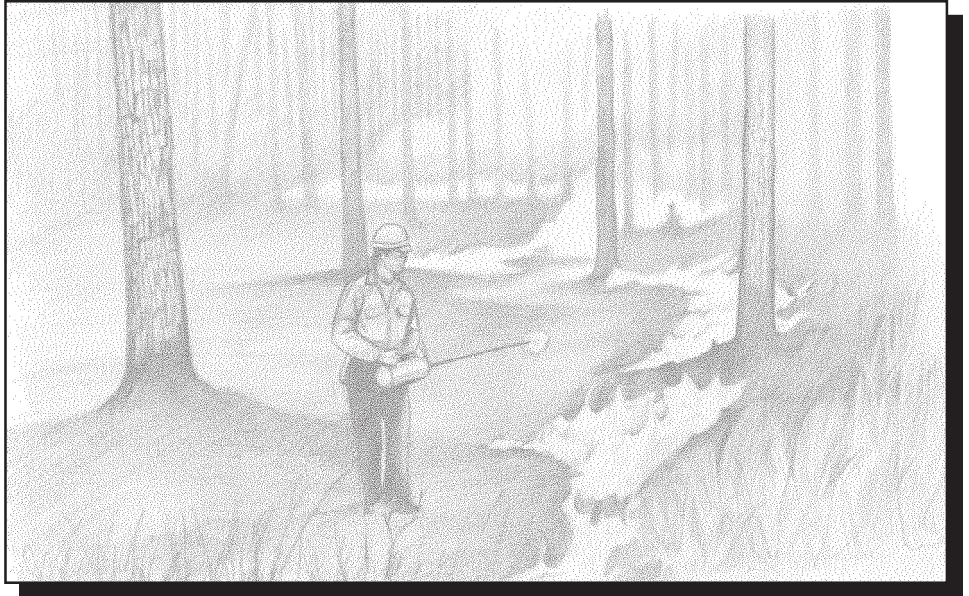
# Natural Areas Management Techniques

## Fire and Natural Areas: An Overview

Whether caused by lightning or the hand of man, fire has been a part of the natural world for centuries. In Virginia, prior to European settlement, American Indians intentionally set fires for hunting, protection, warfare, agriculture, vegetation management and food gathering. On flat terrain, fires would burn over large areas until some natural barrier or rainfall event was encountered. Today unrestrained fires represent a hazard to public safety and property, but the benefits of carefully prescribed and controlled fire can still be realized. Fire is recognized as a cost-effective land management tool by silviculturalists, wildlife managers, and natural area managers. Prescribed burning is practiced today using skillful methods and rigid safety specifications.

Prescribed burning is the intentional use of fire in a particular time and place, under established conditions and specifications, to accomplish a biological or resource management goal. The Virginia Department of Conservation and Recreation (DCR) uses prescribed burning when this practice benefits particular fire-dependant natural communities and species. Secondary benefits derived from regular burning include opening aesthetically pleasing landscapes, impressive displays of wildflowers, greater numbers and enhanced visibility of wildlife, and a profusion of blueberries, huckleberries and raspberries.

Vegetation succession is the natural process by which one type of vegetation is replaced by another leading toward increased biomass and vegetation structure. The end point of succession is referred to as the climax, or steady-state condition in which the community is more or less self-sustaining. Throughout much of Virginia, succession left unchecked would result in dense, closed canopy forest. Maintaining open, early-successional types of vegetation such as prairie, savannah, woodland and glade, and the species dependant on these communities, necessitates fire management as a means of *setting back* the process of succession.



*Prescribed Burning*

Fire contributes to maintaining Virginia's natural heritage in so many ways. Entire forest types such as longleaf pine forest, pitch pine forest and table mountain pine forest are created and perpetuated by fire. The grassy savannahs created by fire provide the necessary breeding habitat for rare Bachman's sparrows and other forms of wildlife. Prairie vegetation still exists in Virginia largely because of frequent accidental fires along railroad tracks. Lastly, there are more than 100 rare plant species which either depend

on or benefit from fire. Fire liberates the rare plants from competing woody vegetation and sometimes enhances seed germination.

The case of the Virginia-endemic Peter's Mountain Mallow is dramatically illustrative. Just four naturally established individual plants remained until an experimental burn was conducted at the site. *Four hundred* new plants appeared after the fire. Prescribed burn management will likely rescue this species from the brink of extinction.

For more information, contact the Department of Conservation and Recreation.

  
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